

# SYSTEM SECURITY AND RELIABILITY ACTION PLAN 2019

Updated 10 October 2019

Two page infographic summarising system security and reliability work program.



## SYSTEM SECURITY

**A stable power system:**  
the power system operates within defined technical limits, even when a major power system element disconnects from the system

**Underway**

### Frequency control work plan

Working with AEMO and the AER on designing new, coordinated and lowest-cost ways to deliver frequency control services over the medium to longer term.

**April 2019  
Final report**



### Reliability Panel review of the frequency operating standard

The standard has been restructured and consolidated to avoid duplication and improve the obligations it places on AEMO to manage the power system frequency.

**May 2019  
Final determination**



### Improving intervention compensation and settlement processes rule

Rules to improve administrative processes related to AEMO's interventions in the market, for example the way generators are compensated after a direction to help maintain system security or reliability.

**June 2019  
Final determination**



### Reliability Panel assessment of protected event request

Request by AEMO to declare the risk to South Australia's power system from destructive winds as a "protected event".

**Aug 2019  
Final report**



### Investigation into intervention mechanisms in the NEM

Evaluating the effectiveness of the interventions framework in light of the increasing use of directions by AEMO to manage system security, and recommending changes to the interventions framework.

**Oct 2019  
Draft report**

### Investigation into minimum system strength and inertia frameworks in the NEM

Evaluating the current frameworks for managing system strength and inertia and recommending any changes needed to reduce the costs of providing ongoing maintenance of power system security through the use of directions.

**Oct 2019  
Final determination**

### Increasing consistency in application of the emergency interventions framework rule

Improving consistency in the treatment of market participants by applying the regional reference node test to the reliability emergency reserve trader (RERT) when AEMO intervenes to maintain security and reliability.

**Oct 2019  
Final determination**

### Improving arrangements for paying emergency compensation rule

Fine-tuning the arrangements under which compensation is paid to market participants when AEMO intervenes to maintain security and reliability.

**Nov 2019  
Final report**

### Reliability Panel Generator compliance template review

Updating the template to incorporate recent changes to generator technical performance standards and improve clarity and usability.

**Dec 2019  
Final report**

### Review of system black event in South Australia

Forward-looking assessment of what changes to regulatory frameworks are needed to manage new risks faced by the power system, drawing on what has been learned since the South Australian black system event in 2016.

**Dec 2019  
Draft determination**

### Improving the provision of system restart ancillary services

Updating the arrangements under which the services that "jump start" the power grid after a system black are provided, including more rigorous testing processes.

**Dec 2019  
Draft determination**

### Addressing the need for primary frequency response rule

Developing mechanisms or arrangements to increase the provision of primary frequency response, to help manage frequency deterioration.





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## WHOLESALE RELIABILITY

**Enough capacity to meet demand:** having sufficient generation and demand response capacity to supply customer needs

**Underway**

### AEMC/AEMO/AER virtual power plant trial

Trial to inform changes to regulatory frameworks and operational processes so VPPs can play a bigger role in the energy market. In Australia grid-connected VPPs are focussed on coordinating rooftop PV and battery storage.

**April 2019  
Final determination**

### Early implementation of ISP priority projects rule

Streamlining the regulatory processes for key time-critical projects identified in AEMO's Integrated System Plan.

**April 2019  
Final report**

### Reliability Panel annual review of market performance

Review of the performance of the national electricity market in terms of security, reliability and safety over 2017-2018.

**May 2019  
Final determination**

### Enhancement to the RERT rule

Seeks broad changes to the NEM's emergency reserve – the Reliability and emergency reserve trader framework.

**Aug 2019  
Final report**

### Definition of unserved energy project

Reliability Panel project to clarify and simplify the definition of unserved energy used in post-event analysis of supply interruptions.

**Oct 2019  
Concept design**

### Reforms to access arrangements review

Developing draft rule change requests to progress phased reforms to how generators access and use the network.

**Oct 2019  
Final determination**

### Transparency of new projects rule

Seeks to enhance publicly available information about new generation projects, as well as to allow developers of these projects to register with AEMO to get access to key technical information such as network modelling data.

**Oct 2019  
Draft determination**

### Changes to medium term reliability forecasting rule

Seeks changes to the medium term projected assessment of system adequacy (MT PASA) - a forecasting exercise to assess whether electricity supply is expected to meet demand across a two year horizon.

**Nov 2019  
Consultation paper**

### Transparency of unserved energy calculation rule

Seeks rule to clarify and simplify the definition of unserved energy used in post-event analysis of supply interruptions.

**Dec 2019  
Final determination**

### Wholesale demand response rule

Seeks to introduce a new mechanism to enable more wholesale demand response.

**Dec 2019  
Consultation paper**

### Generator registration thresholds rule

Reducing the threshold for registration as a generator from 30 MW to 5 MW.

**Dec 2019  
Final determination**

### Demand management incentives for transmission businesses rule

Seeks to develop demand management incentives to apply to transmission businesses.

**Dec 2019  
Draft determination**

### Short term forward market rule

Providing an AEMO-operated platform to enable market participants to contract for electricity in the week leading up to dispatch, to help enable more demand response.

**Dec 2019  
Consultation paper**

### Integrating energy storage systems in the NEM

Seeks to recognise and define energy storage systems in the rules and provide a framework that supports their participation (and business models where there are a mix of technology types behind a connection point).

**Pending completion of access review**

### Reforms to transmission charging review

Developing rule change requests to improve the inter-regional transmission charging regime so that it adequately attributes the cost of interconnectors to those who benefit from them.

